

5-11: FPO FLOOD PLAIN OVERLAY ZONE

E. STANDARDS WHERE THE BASE FLOOD ELEVATION IS KNOWN

In all areas of the FPO Zone where the base flood elevation data has been determined in the Flood Insurance Study, the FIRM map, or a federal, state, or other accurate scientific engineering flood plain study maintained under zoning section 5-11-H-3, the following provisions shall be required.

1. Residential Construction

- a. Any new construction or substantial improvement to any structure used as a dwelling shall have the lowest floor (including basement) raised above the elevation of the base flood.
- b. Within areas designated AO and AH on the FIRM map, all new construction and substantial improvements to structures used as a dwelling shall have the lowest floor (including basement) raised above the highest adjacent grade to a point at least as high as the depth number specified in feet on the FIRM map (at least two feet if no depth number is specified.)
- c. Within areas designated AO and AH on the FIRM map, there shall be drainage paths around existing and proposed structures built on slopes which are adequate to guide flood waters around and away from any proposed dwelling structure.
- d. All new construction and substantial improvements that fully enclose areas below the lowest floor that are usable solely for the parking of vehicles, building access, or storage in an area other than a basement, and which are subject to flooding, shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing the entry and exit of floodwater. Designs for meeting this requirement must either be certified by a professional engineer or architect licensed to practice in the State of Utah or meet or exceed the following criteria:
 - i. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided;
 - ii. The bottom of all openings shall be no higher, than one foot above grade;
 - iii. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwater.

2. Nonresidential Construction

- a. Any new construction or substantial improvement to any commercial, industrial, or other nonresidential building shall have the lowest floor, including basement, raised above the level of the base flood elevation.

Exception: The building, together with any attendant utility and sanitary facilities, may be placed below such elevation if it:

- i. Is flood proofed so that below the base flood level, the building is watertight with walls substantially

impermeable to the passage of water;

ii. Has structural components capable of resisting hydrodynamic loads and the effects of buoyancy; and

iii. Is certified by a professional engineer or architect licensed to practice in the State of Utah that the standards of this zoning section are satisfied. (Such certifications shall be provided to the Zoning Administrator as set forth in zoning section 5-11-H-3-b).

b. Within areas designated AO and AH on the FIRM map, any new construction or substantial improvement to a commercial, industrial, or other nonresidential building shall have the lowest floor (including basement) raised above the highest adjacent grade to a point at least as high as the flood depth number specified in feet on the FIRM map (at least two feet if no depth number is specified).

Exception: The building, together with attendant utility and sanitary facilities, may be placed below such flood depth number if it is completely flood proofed up to or above the specified flood level according to the flood proofing standard required in subparts (1) to (3) in zoning section 5-11-E-2-a immediately above.

c. Within areas designated AH and AO on the FIRM map, there shall be drainage paths around existing and proposed structures built on slopes which are adequate to guide flood waters around and away from the proposed buildings.

d. All new construction and substantial improvements that fully enclose areas below the lowest floor that are usable solely for the parking of vehicles, building access, or storage in an area other than a basement, and which are subject to flooding, shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing the entry and exit of floodwater. Designs for meeting this requirement must

either be certified by a professional engineer or architect licensed to practice in the State of Utah or meet or exceed the following criteria:

i. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided;

ii. The bottom of all openings shall be no higher than one foot above grade;

iii. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwater.

3. Mobile Homes

a. For any new mobile home park or mobile home subdivision; for any expansions to an existing mobile home park or mobile home subdivision; for any existing mobile home park or mobile home subdivision where the repair, reconstruction, or improvement of the streets, utilities, and pads equals or exceeds 50 percent of the assessed value of the streets, utilities, and pads before the work commenced; or for any mobile home placed elsewhere than in a mobile home park or mobile home subdivision, it is required that:

i. Stands or lots be elevated on compacted fill or mobile homes placed on pilings so that the lowest floor of the mobile home is above the base flood level;

- ii. Adequate surface drainage and access for a mobile home transporter are provided; and
 - iii. In the instance of elevation on pilings, lots are large enough to permit steps; piling foundations are placed in stable soil not more than ten feet apart, and reinforcement is provided for pilings more than six feet above the ground level.
- b. No mobile home shall be placed in a floodway, except in an existing mobile home park or existing mobile home subdivision.
- c. All mobile homes (manufactured homes) that are placed or substantially improved within zones A1-30, AH, or AE on the FIRM for Utah County on sites,
- i. Outside of a mobile home park or subdivision,
 - ii. Within a new mobile home park or subdivision,
 - iii. In an expansion to an existing mobile home or subdivision, or
 - iv. In an existing mobile home park or subdivision on which a mobile home has incurred substantial damage as the result of a flood, shall be elevated on a permanent foundation such that the lowest floor of the mobile home is elevated to or above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.
- d. All mobile homes (manufactured homes) to be placed or substantially improved on sites in an existing mobile home park or subdivision within flood zones A1-30, AH, or AE on the FIRM for Utah County that are not subject to the provisions of zoning section 5-11-E-3-c, above, shall be elevated so that either:
- i. The lowest floor level of the mobile home is at or above the base flood elevation,
- or
- ii. The mobile home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and that are securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.
- e. Any basement on which a mobile home (manufactured home) is placed shall meet the standards of zoning section 5-11-E-1 above, for "residential construction".

4. Recreational Vehicles

All recreational vehicles placed on sites within flood zones A1-30, AH, or AE on the FIRM for Utah County shall either:

- a. Be on the site for fewer than 180 consecutive days, or
- b. Be fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect-type utilities and

security (hold-down) devices, and has no permanently attached additions.